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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/588,019	08/19/2008	Peter Kan	PH010536US1 (TIR089)	1264
78823	7590	12/22/2009	EXAMINER	
Philips Intellectual Property and Standards P.O. Box 3001 Briarcliff Manor, NY 10510-8001			SHALLENBERGER, JULIE A	
			ART UNIT	PAPER NUMBER
			2885	
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			12/22/2009	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/588,019	<b>Applicant(s)</b> KAN ET AL.	
	<b>Examiner</b> JULIE A. SHALLENBERGER	<b>Art Unit</b> 2885	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 09 March 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 March 2008 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>11/15/07</u> . | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 4-11, 13, and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by Kirlyay (6,880,952).

In regard to claim 1, Kirlyay teaches a cove illumination module for illuminating a cove, the module comprising a substrate<sup>12,14</sup> having one or more light-emitting elements 16 operatively mounted thereon, said one or more light-emitting elements generating light having one or more wavelengths; and an external housing unit 28 (see figures 1 and 2) sealingly connected to the substrate (col. 2 lines 48-54), said external housing element including one or more optical elements 24 optically coupled to the one or more light-emitting elements, said one or more optical elements manipulating the light in a desired manner thereby illuminating the cove (col. 5 lines 54-65); wherein the substrate is adapted for connection to a source of power (col. 5 lines 27-38) thereby enabling activation of the one or more light-emitting elements (col. 3 line 55-col. 5 line 65).

In regard to claim 2, Kirlyay teaches a heat sink thermally connected to the substrate (col. 2 lines 55-65).

In regard to claims 4 and 5, Kirly teaches a reflector 18,20,50 mounted on the substrate, the reflector optically coupled to one or more of the light emitting elements and wherein the reflector is configured as a linear reflector having a uniform longitudinal cross-sectional shape (18, 20 – see figure 1 and col. 6 lines 10-21).

In regard to claims 6, 7, and 10, Kirly teaches the longitudinal cross sectional shape of the reflector has one or more walls 50, the one or more walls being vertical, parabolic or sloped wherein the reflector is configured to generate an asymmetric beam of light or symmetric beam of light from the light generated by the light-emitting elements (figure 5, col. 6 lines 10-21).

In regard to claim 8, Kirly teaches the external housing unit is manufactured from a metal (col. 5 lines 2-3).

In regard to claim 9, Kirly teaches the external housing unit and the one or more optical elements are integrally formed (col. 2 lines 20-65).

In regard to claim 11, Kirly teaches the one or more of the optical elements are configured as a lens. (col. 5 lines 54-65).

In regard to claim 13 and 14, Kirly teaches two or more cove illumination modules operatively coupled for operation thereof wherein the two or more cove illumination modules are operatively connected by an environmentally sealable electrical connection (col. 2 lines 38-54).

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***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kirlyay.

In regard to claim 3, Kirlyay teaches the invention described above, but does not explicitly teach the substrate is configured as a metal core printed circuit board.

However, metal core PCBs (MCPCB) are well known in the art (further evidenced by Kan, Matheson, and Dubuc - see references cited in conclusion) and it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a metal core MCPCB in order to facilitate in the transfer of heat away from the LEDs. One would have been motivated to use a MCPCB in order to increase the efficiency of the lighting device by protecting the LEDs from excessive exposure to heat.

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kirlyay in view of Arai (5,055,976).

In regard to claim 12, Kirlyay teaches the invention described above, but lacks the teaching of a Fresnel lens.

Arai teaches using a Fresnel lens (col. 5 lines 54-65).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use a Fresnel lens in Kirlyay's lighting device as taught by Arai in

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order to condense the light. One would have been motivated to use a Fresnel lens in Kirlyay's device in order to adjust the illumination angle of light emitted from the device.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kan (2005/0207166), Matheson (2005/021368), and Dubuc (7,033,060) teach the use of MVPCBs in similar light devices.

Segretto (6,536,924), Talamo (6,739,735), and Cleaver (6,592,238) teach related lighting devices.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JULIE A. SHALLENBERGER whose telephone number is (571)272-7131. The examiner can normally be reached on Monday - Friday 830-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jon-Suk (James) Lee can be reached on 571-272-7044. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JAS  
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/Julie A Shallenberger/  
Examiner, Art Unit 2885